

**Dirigo Dowels, Inc.**  
**Somerset County**  
**New Portland, Maine**  
**A-315-71-L-N/A**

**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**  
**After-the-Fact**

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

The Air Emission License for Dirigo Dowels (Dirigo) of New Portland, Maine, expired on December 22, 2004. Dirigo has applied to renew their expired license permitting the operation of emission sources associated with their birch dowel manufacturing facility.

Dirigo has requested an amendment to reduce licensed fuel use to reflect the recent decrease in production.

**B. Emission Equipment**

Dirigo is authorized to operate the following air emission units:

**Fuel Burning Equipment**

| <u>Equipment</u> | <u>Date of Construction</u> | <u>Maximum Capacity (MMBtu/hr)</u> | <u>Fuel Type</u> | <u>Maximum Firing Rate (lb/hr)</u> | <u>Post Combustion Ctrl Eqpmnt</u> | <u>Stack #</u> |
|------------------|-----------------------------|------------------------------------|------------------|------------------------------------|------------------------------------|----------------|
| Boiler #1        | 1992                        | 25.22                              | Wood             | 4300                               | Centrifugal Separator              | 1              |

**Process Equipment**

| <u>Equipment</u>   | <u>Quantity</u> | <u>Pollutants</u> | <u>Pollutant Control Equipment</u> |
|--------------------|-----------------|-------------------|------------------------------------|
| Dowel Molders      | 4               | PM                | Cyclone                            |
| Lineal Machines    | 4               | PM                | Cyclone                            |
| Spiral Machines    | 4               | PM                | Cyclone                            |
| Large Pin Machines | 4               | PM                | Cyclone                            |
| Small Pin Machines | 6               | PM                | Cyclone                            |
| Skag Saw           | 1               | PM                | Cyclone                            |
| Bolter Saw         | 1               | PM                | Cyclone                            |
| Gang Saw           | 1               | PM                | Cyclone                            |

C. Application Classification

The previous air emission license for Dirigo expired on December 22, 2004. A complete application was not submitted on time, therefore Dirigo is considered to be an existing source applying for an after-the-fact renewal. The Department has determined the facility is a minor source and the application has been processed through Chapter 115 of the Department's regulations.

**II. BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per Chapter 115 of the Department's regulations.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler 1

Boiler 1 was manufactured in 1992 by the Industrial Boiler Company and is a stoker type boiler with a heat input capacity of 25.22 MMBtu/hr firing wood chips. As such, Boiler 1 is subject to New Source Performance Standards (NSPS) Subparts A and Dc §60.40c and 60.48c(g) and (i) which is applicable to boilers with a heat input between 10 MMBtu/hr and 100 MMBtu/hr and manufactured after June 9, 1989. As such, the amount of fuel combusted each day in Boiler 1 shall be recorded.

BPT for Boiler 1 is the following:

1. Emission limits for PM is regulated by MEDEP Regulations, Chapter 103.
2. SO<sub>2</sub>, NO<sub>x</sub> and VOC emission data used was taken from the previous license and falls within the range of AP-42 dated 2/98 for wood fired stoker type boilers.
3. CO emission data taken from AP-42 dated 2/98 for wood fired stoker type boilers.
4. Visible emissions from the stack serving Boiler 1 (Stack 1) shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than 2 six minute block averages in a 3 hour period.

C. General Processes

BPT for the general processes at Dirigo shall include the continuing use of cyclones to control PM. Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period

D. Facility Emissions

The following total licensed annual emissions for the facility are based on the following. Usage based on a 12 month rolling total.

- 70.7 x 10<sup>6</sup> lb/yr of steam produced from Boiler 1 (equivalent to 8,000 tons per year of wood having a moisture content of 30%)

**Total Annual Emissions for the Facility**  
(used to calculate the annual license fee)

| <u>Pollutant</u> | <u>Tons/yr</u> |
|------------------|----------------|
| PM               | 14.0           |
| PM <sub>10</sub> | 14.0           |
| SO <sub>2</sub>  | 1.4            |
| NO <sub>x</sub>  | 3.7            |
| CO               | 51.3           |
| VOC              | 0.9            |

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Dirigo is below the emissions level required for modeling and monitoring.

**ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-315-71-L-N/A subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    2. pursuant to any other requirement of this license to perform stack testing.
  - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. submit a written report to the Department within thirty (30) days from date of test completion.  
[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.  
[MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee

shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]

- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

(16) **Boiler 1**

- A. Dirigo shall record Boiler 1 total steam flow, in pounds, from the digital readout daily. [MEDEP Chapter 115, BPT]
- B. Dirigo shall continue to use two multiple centrifugal separators in series to control particulate matter emissions from Boiler 1. [MEDEP Chapter 115, BPT]
- C. Dirigo shall limit steam production to  $70.7 \times 10^6$  #/yr, based on a 12 month rolling total. [MEDEP Chapter 115, BPT]
- D. Boiler 1 is subject to the requirements of Federal New Source Performance Standards (NSPS) 40 CFR Part 60, Subparts A and Dc §60.40c and 60.48c(g) and (i). As such, the amount of fuel combusted each day in Boiler 1 shall be recorded. [40 CFR Part 60, Subparts A and Dc §60.40c and 60.48c(g) and (i)]
- E. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

**Boiler 1 Emission Limits**

| <u>Pollutant</u> | <u>lb/MMBtu</u> | <u>lb/hr</u> |
|------------------|-----------------|--------------|
| PM               | 0.30            | 7.57         |
| PM <sub>10</sub> | n/a             | 7.57         |
| SO <sub>2</sub>  | n/a             | 0.76         |
| NO <sub>x</sub>  | n/a             | 2.02         |
| CO               | n/a             | 27.74        |
| VOC              | n/a             | 0.50         |

Compliance shall be demonstrated through stack testing in accordance with the appropriate method found in 40 CFR Part 60, Appendix A.

- F. Visible emissions from the stack serving Boiler 1 (Stack 1) shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than 2 six minute block averages in a 3 hour period. [MEDEP Chapter 115, BPT]

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**(17) General Process Emission Sources**

Dirigo shall continue the use of cyclones to control PM from general processes (i.e.: dowel molders, lineal machines, spiral machines, large pin machines, small pin machines, skag saws, bolter saws and gang saws). [MEDEP Chapter 115, BPT]

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]

**(18) Payment of Fees**

Dirigo shall pay the annual air emission license fee within 30 days of **June 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 7, 2005

Date of application acceptance: June 8, 2005

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This order prepared by Mark E. Roberts, Bureau of Air Quality.